



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,102	02/19/2002	Kenneth J. Wayne	10011474-1	6062

7590 09/11/2002

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

WUJCIAK, ALFRED J

ART UNIT

PAPER NUMBER

3632

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/079,102	WAYNE, KENNETH J.	
	Examiner Alfred J Wujciak III	Art Unit 3632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 February 2002.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) 6-10 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
  If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:  
    1. Certified copies of the priority documents have been received.  
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
  a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.<br>_____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This is the first Office Action for the serial number 10/079,102, Low Cost Optomechanical Mount for Precisely Steering/Positioning a Light Beam, filed on 2/19/02.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent # 5,946,127 to Nagata.

Nagata teaches an optomechanical system (figure 1) comprising a sphere (15), a first set of curved surface (above the sphere, 26) and a second set of curved surface (below the sphere, 26). The first and second set of curved surfaces contact the sphere at approximately one point. The first and second set of curved surfaces is a ball having first and second set of balls (figure 1). The first set of balls applies a force to the sphere that is collinear with an opposite of a force that the corresponding ball in the second set applies to the sphere. The system comprises a housing (20) adapted to receive the sphere, first and second set of balls.

(e) the invention was described in-  
(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent # 6,170,795 to Wayne.

Wayne teaches an optomechanical system (figure 1) comprising a sphere (12), a first and second set of curved surfaces (20, figure 8) in contact with the sphere, having finishes (col. 6, lines 9-21). The sphere includes an opening (figure 3) adapted for insertion of a tool (19).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata.

Nagata teaches two first and second sets of curved surfaces but fails to teach the first and second set of curved surfaces comprising 3 curved surfaces. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have added another curved surface to Nagata's first and second sets of curved surfaces to provide an additional support for rotating the sphere.

Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wayne in view of Nagata.

Wayne teaches all elements with a cover (18) having a spring (32) above but fails to teach a plurality of magnets in contact with the sphere. Nagata teaches the plurality of magnets (13 and 31) in contact with the sphere. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have added the plurality of magnets to Wayne's sphere as taught by Nagata to provide a friction force for the sphere to rotate in a specific position.

***Allowable Subject Matter***

Claims 6-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach the system comprises a lid attached to the housing to apply a downward force upon the first set of balls, sphere, and second set of balls.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent # 4,925,288 to Harris

US Patent # 4,727,278 to Staufenberg, Jr. et al.

US Patent # 5,138,496 to Pong

US Patent # 4,358,283 to Kumpar

US Patent # 6,222,687 to Nagashima

Art Unit: 3632

US Patent # 5,995,758 to Tyler

US Patent # 5,530,547 to Arnold

US Patent # 5,502,598 to Kimura et al.

Harris, Staufenberg, Jr. et al., Pong, Kumpar, Nagashima, Tyler, Arnold and Kimura et al. teach a sphere support with the first and second set of curved surfaces in contacting with the sphere.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred J Wujciak III whose telephone number is 703 306 5994. The examiner can normally be reached on 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Les Braun can be reached on 703 308 2156. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 3519 for regular communications and 703 308 3519 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1113.

Joey Wujciak  
September 6, 2002

  
ANITA KING  
PRIMARY EXAMINER